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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/669,138

09/22/2003

Stephane Dedieu

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2868

20575

7590

11/03/2006

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EXAMINER

LE, HUYEN D

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/669,138	Applicant(s) DEDIEU ET AL.	
	Examiner HUYEN D. LE	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/13/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, a first loudspeaker coupled with a first enclosure configured to have a first frequency response at an ear reference point, and at least one further loudspeaker coupled with a corresponding further enclosure that is smaller than the first loudspeaker enclosure and is configured to have a further frequency response at said ear reference point (claim 1), the each of said first and further loudspeaker enclosures comprises a front cover with an opening, an acoustically transparent grill mounted in said opening, a gasket and a rear cover (claim 3), a digital signal processor (claim 6) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification, as originally filed, does not provide the support for the invention as is now claimed.

The original specification does not teach and show how the first loudspeaker coupled with a first enclosure is constructed with a further loudspeaker coupled to a corresponding further enclosure, wherein the first speaker coupled to a first enclosure configured to have a first frequency response at an ear reference point, and the further loudspeaker coupled with the corresponding further enclosure that is smaller than the first loudspeaker enclosure and is configured to have a further frequency response at said ear reference point as claimed in claim 1.

The original specification does not teach and show how the further enclosure having the further loudspeaker is constructed relative to the first enclosure having the first speaker at the ear

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reference point, wherein each of the loudspeaker enclosures comprises a front cover with an opening, an acoustically transparent grill, a gasket and a rear cover as claimed in claim 3. As shown in figure 3, only one speaker enclosure comprises a front cover (1) with an opening to accommodate a separate acoustically transparent decorative grill (2, page 4, lines 2 and 3).

Further, the specification does not teach and show how a digital signal processor can be connected to the speaker system for separating high frequency portions of the first and further frequency responses as claimed in claim 6.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear that a loudspeaker as claimed in claim 3 is the same loudspeaker as claimed in claim 1.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andre et al. (U.S. patent 5,109,424).

Regarding claim 1, as best understood with regarding 112, 1st, Andre teaches a speaker system that comprises a first speaker coupled with a first enclosure and a further speaker coupled with a further enclosure (22, 26, 32) at an ear reference point. As shown in figures 2 and 3, the further enclosure of the further speaker (22) is smaller than the first speaker enclosure (26 and/or 32).

Andre does not specifically teach that the further loudspeaker includes a resonance that overlaps and compensates for the anti-resonance as claimed. However, Andre does teach that the low frequency sound produced by the transducer (26) is constructed for preventing distortion of the sound produced by the further transducer (the high frequency transducer 22).

Further, Andre does estimate the sizes and the dimensions for constructing the transducers (22, 26, col. 3, lines 6-45); it therefore, it would have been obvious to one skilled in the art to construct the transducer assembly of Andre for providing the further loudspeaker (the high frequency transducer 22) including a resonance that overlaps and compensates for the anti-

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resonance of the first loudspeaker (26) for better tuning and preventing the distortion depending on the desired frequency characteristics.

Regarding claim 2, Andre teaches the further loudspeaker enclosure that is ported for enhancing low frequency (24, 24e, 26).

Regarding claim 6, Andre does not specifically teach a digital signal processor. However, providing a digital signal processor to be connected to the stereo headphones is known in the art.

Therefore, it would have been obvious to one skilled in the art to provide a digital signal processor for the stereo headphone of Andre for better processing the sound produced by the first and further loudspeakers.

6. Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pollak al. (U.S. patent 6,356,644).

Regarding claim 1, as best understood with regarding 112, 1st, Pollak teaches a speaker system that comprises a first speaker coupled with a first enclosure and a further speaker coupled with a further enclosure (23, 24, 31, 32, 33, 34, figures 4 and 8) at an ear reference point. As shown in the drawings, the further enclosure (31) of the further speaker (33) is smaller than the first speaker enclosure (32, 34 and see col. 6, lines 15-18).

Pollak does not specifically teach that the further loudspeaker includes a resonance that overlaps and compensates for the anti-resonance as claimed. However, Andre does teach the sets of speakers in the different frequency ranges and the chambers for housing the speakers that are different in sizes (col. 2, lines 39-44 and col. 6, lines 15-18).

Therefore, it would have been obvious to one skilled in the art to construct the speaker casings of Pollak in the sizes and dimensions for including any resonance such as a resonance that overlaps and compensates for the anti-resonance depending on the desired frequency characteristics.

Regarding claim 6, Pollak does not specifically teach a digital signal processor. However, providing a digital signal processor to be connected to the stereo headphone is known in the art.

Therefore, it would have been obvious to one skilled in the art to provide a digital signal processor for the stereo headphone of Pollak for better processing the sound produced by the first and further loudspeakers.

Response to Arguments

7. Applicant's arguments filed 8/10/06 have been fully considered but they are not persuasive.

Responding to the arguments about drawings, the Applicant should note that figure 3 only show one speaker to be coupled with one enclosure. The drawings in the present invention does not show one further speaker with a further enclosure that is smaller than the first loudspeaker enclosure as claimed in claim 1.

Responding to the arguments about the specification, as mentioned above, the specification does not teach how the first loudspeaker enclosure is constructed with the second loudspeaker enclosure, wherein the first speaker coupled to a first enclosure configured to have a first frequency response at an ear reference point, and the further loudspeaker coupled with the

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corresponding further enclosure that is smaller than the first loudspeaker enclosure and is configured to have a further frequency response at said ear reference point as claimed in claim 1, and wherein each of the loudspeaker enclosures comprises a front cover with an opening, an acoustically transparent grill, a gasket and a rear cover as claimed in claim 3. As shown in figure 3, only one speaker enclosure comprises a front cover (1) with an opening to accommodate a separate acoustically transparent decorative grill (2, page 4, lines 2 and 3).

Further, the specification does not teach and show how a digital signal processor can be connected to the speaker system for separating high frequency portions of the first and further frequency responses as claimed in claim 6.

Conclusion.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN D. LE whose telephone number is (571) 272-7502. The examiner can normally be reached on 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, SINH TRAN can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HL

October 27, 2006



HUYEN LE
PRIMARY EXAMINER